

L2 ANSWER 71 OF 77 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1994:296834 CAPLUS

DOCUMENT NUMBER: 120:296834

TITLE: Feed enzymes

AUTHOR(S): Chesson, A.

CORPORATE SOURCE: Rowett Res. Inst., Bucksburn/Aberdeen, AB2 9SB, UK

SOURCE: Anim. Feed Sci. Technol. (1993), 45(1), 65-79

CODEN: AFSTDH; ISSN: 0377-8401

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 52 refs. An increasing proportion of barley is being incorporated into diets for broilers as a result of the price advantage of

barley over wheat and the availability of enzymes able to minimize the undesirable consequences of high barley inclusion. The successful use of enzymes in this branch of the poultry industry has stimulated interest in the application of enzymes to barley-based diets for turkey poults and for

layers. The mechanism of enzyme action in cereal-based diets for poultry is not fully understood. Destruction of gel-forming polysaccharides leached from grains does not fully account for the prodn. response. Increased availability of dietary components (starch and protein) released

by enzymes from intact cells is probably of equal importance and argues for the use of multi-enzyme prepns. The value of supplementary enzymes to

the pig industry is inconclusive. Although there are physiol. reasons for

augmenting the digestive capacity of pigs with supplementary enzymes at the time of weaning, feeding trials have failed to produce definitive results in terms of improved performance or reduced neonatal mortality.

A similar variable response to enzyme addn. to grower and finisher diets has been found. The limited nutritive value of some released carbohydrate and

variable survival of enzymes during processing and within the digestive tract may account, in part, for variations in response. **Phytase**, an enzyme newly available in com. amts., may prove of value in reducing the phosphorus content of effluent from intensive rearing facilities.

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ACCESSION NUMBER: 1993:468854 BIOSIS

DOCUMENT NUMBER: PREV199345091979

TITLE: The effects of dietary **xylanase**, **phytase** and phosphorus on the performance of laying hens.

AUTHOR(S): Newkirk, R. W. (1); Classen, H. L. (1); Bedford, M. R.;

Inborr, J.  
CORPORATE SOURCE: (1) Anim. and Poultry Sci., Univ. Saskatchewan, Saskatoon,  
SK S7N 0W0 Canada  
SOURCE: Poultry Science, (1993) Vol. 72, No. SUPPL. 1, pp. 17.  
Meeting Info.: Eighty-second Annual Meeting of the Poultry  
Science Association, Inc. East Lansing, Michigan, USA July  
26-29, 1993  
ISSN: 0032-5791.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

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*MWC*

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ACCESSION NUMBER: 1993:35056 BIOSIS  
DOCUMENT NUMBER: PREV199344011906  
TITLE: Enzyme applications for monogastric feeds: A review.  
AUTHOR(S): Campbell, G. L.; Bedford, M. R.  
CORPORATE SOURCE: Dep. Animal Poultry Sci., Univ. Sask., Saskatoon, Sask. S7N  
0W0 Canada  
SOURCE: Canadian Journal of Animal Science, (1992) Vol. 72, No. 3,  
pp. 449-466.  
ISSN: 0008-3984.  
DOCUMENT TYPE: General Review  
LANGUAGE: English  
SUMMARY LANGUAGE: English; French

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WPI Acc No: 85-147286/198525

XRAM Acc No: C85-064084

Granular detergent compsn. contg. granular enzyme compsn. - comprising  
protease and/or amylase obtd. by concn. of fermentation liquor, zeolite,  
starch and film-forming polymer

Patent Assignee: HENKEL KGAA (HENK )

Inventor: CARDUCK F J; PAWELCZYK H; WEISS A; WITTHAUS M

Number of Countries: 012 Number of Patents: 005

Patent Family:

| Patent No  | Kind | Date     | Applicat No | Kind | Date     | Main IPC | Week     |
|------------|------|----------|-------------|------|----------|----------|----------|
| DE 3344104 | A    | 19850613 | DE 3344104  | A    | 19831207 |          | 198525 B |
| DK 8405791 | A    | 19850608 |             |      |          | 198539   |          |
| EP 168526  | A    | 19860122 | EP 84114491 | A    | 19841129 |          | 198604   |
| EP 168526  | B    | 19890125 |             |      |          | 198904   |          |
| DE 3476420 | G    | 19890302 |             |      |          | 198910   |          |

Priority Applications (No Type Date): DE 3344104 A 19831207

Cited Patents: DE 2531961; FR 2160661; US 4176079; DE 2736903

Patent Details:

Patent Kind Lan Pg Filing Notes Application Patent

DE 3344104 A 19

EP 168526 A G

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

EP 168526 B G

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL

Abstract (Basic): DE 3344104 A

Granular enzyme compsn. contains by wt. (a) 5-25% protease and/or  
amylase, as dry solids obtd. by the concn. of a fermentation liquor,  
(b) 10-60% synthetic, fine crystalline bonded water-contg. zeolite of  
NaA and/or NaX type, (c) 10-50% starch capable of swelling in water,  
(d) 5-50% water-soluble granulating auxiliaries, consisting of organic,  
film-forming polymers, and opt. also (e) 0.5-15% inorganic salt  
increasing the disintegration of the granulate in water.

The grain-size of the granulate is 0.1-2 mm. The proportion of  
particles having grain-size below 0.1 mm is no more than 0.2(0.05)%.  
More specifically, the compsn. contains 10-20% (a), 15-45% (b), 20-40%  
(c) and 5-30% (d) and the sum of (b) + (c) is max. 75%. The enzyme  
activity of the compsn. is at least 100,000 protease units/g.

Component (d) consists esp. of water-soluble salts of CMC and/or  
polyethylene glycol, partic. of 5-20% NaCMC and 3-10% polyethylene  
glycol having mol. wt. 1000-20000. Component (e) can be Na<sub>2</sub>SO<sub>4</sub> or



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| 1   | CTFR    | 9               |

Total number of pages: 9

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